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CAPITOL PATENT & TRADEMARK LAW FIRM, PLLC P.O. BOX 1995 VIENNA, VA 22183			EXAMINER RUSSELL, WANDA Z	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/613,104	Applicant(s) CHEN ET AL.	
	Examiner WANDA Z. RUSSELL	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 9-18, 20-26, 29, 31-48, 51 and 53-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-18, 20-26, 29, 31-48, 51, and 53-56 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-7, 9-18, 20-26, 29, 31-48, 51, and 53-56** are rejected under 35 U.S.C. 103(a) as being unpatentable over John Ling Wing So (Pub No. US 2002/0109879 A1), in view of Enoki et al. (Pub No. US 2002/0057691 A1).

Regarding **claim 1**, Wing So substantially discloses a network device (system, Abstract, line 1) operable to:

by itself generate and send (setup, [0194], line 4) a backward (reverse, [0194], line 4) path request message ([0194], line 4) to a source of a separately generated, initial forward path request message associated with a forward Label Switched Path (LSP) ([0365], line 7) between the device and the source; and

receive ([0194], line 3) a backward path reservation message (setup request, [0194], line 3) from the source in order to establish a backward LSP between the device and the source, wherein the separately established forward and backward LSPs form a bi-directional LSP between the device and the source ([0488], line 3, and [0572], lines 1-3, and 1-9).

However, So fails to specifically teach that the device by itself generates a backward path request message to a source.

Enoki et al. teach the device by itself generates a backward path request message to a source (referring to Fig. 15, in paragraph [0147], it states that "the LSR 3 transmits a label request message S26 required for the down direction LSP setup to the LSR 2". The down direction is from terminal B to A, see [0143], last 3 lines).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine So with Enoki et al. to obtain the invention as specified, for designating the down direction.

Regarding **claim 2**, Wing So and Enoki et al. disclose everything claimed as applied above (see claim 1). In addition, Wing So discloses the device as in claim 1 further operable to generate and send an initial, forward path reservation message to the source in order to establish the forward LSP after receiving the initial forward path request message ([0374], lines 4-6, and [0482], lines 1-3).

Regarding **claim 3**, Wing So and Enoki et al. disclose everything claimed as applied above (see claim 1). In addition, Wing So discloses the device as in claim 1 further operable to generate and send a backward path reservation message ([0194], line 4) to a destination after receiving a backward path request message ([0194], line 3) from the destination in order to establish a backward LSP ([0365], line 7) between the device and the destination (set of nodes, 3rd line from the end).

Regarding **claim 4**, Wing So and Enoki et al. disclose everything claimed as applied above (see claims 1 and 3). In addition, Wing So discloses the device in claim 3 further operable to separately generate and send a forward path request message to the destination ([0194], lines 1-7) in order to establish a forward LSP ([0365], line 7)

between the device and the destination (set of nodes, 3rd line from the end), wherein the separately established forward and backward LSPs between the device and the destination form a bi-directional LSP between the device and the destination ([0194], lines 1-9, and [0488], lines 1-5).

Regarding **claim 5**, Wing So and Enoki et al. disclose everything claimed as applied above (see claim 1). In addition, Wing So discloses the device as in claim 1 wherein the forward and backward LSPs between the device and source comprise the same path ([0488], lines 1-5, and [0194], lines 1-9).

Regarding **claim 6**, Wing So and Enoki et al. disclose everything claimed as applied above (see claims 1, 3, and 4). In addition, Wing So discloses the device as in claim 4 wherein the forward and backward LSPs between the device and destination comprise the same path ([0488], lines 1-5, and [0194], lines 1-9).

Regarding **claim 7**, Wing So and Enoki et al. disclose everything claimed as applied above (see claim 1). In addition, Wing So discloses the device as in claim 1 further operable to generate the backward path request message ([0264]) based on backward path parameters contained in the initial forward path request message ([0194], lines 1-5).

Regarding **claim 9**, Wing So and Enoki et al. disclose everything claimed as applied above (see claims 1 and 7). In addition, Wing So discloses the device as in claim 7 further operable to query a local database to obtain routing information in order to generate the backward path request message ([0557], last 4 lines).

Regarding **claim 10**, Wing So and Enoki et al. disclose everything claimed as applied above (see claims 1 and 7). In addition, Wing So discloses the device as in claim 7 further operable to generate the backward path request message based on a quality-of-service (QoS) ([0297], 4th line from the end) indicator contained within the parameters.

Regarding **claim 11**, Wing So and Enoki et al. disclose everything claimed as applied above (see claims 1 and 7). In addition, Wing So discloses the device as in claim 7 further operable to generate the backward path request message based on best effort ([0149], last line) routing information when a QoS indicator is not contained within the parameters.

Regarding **claim 12**, Wing So and Enoki et al. disclose everything claimed as applied above (see claims 1 and 7). In addition, Wing So discloses the device as in claim 7 wherein the traffic parameters comprise a bi-directional LSP indicator ([0258] and [0264]) and a QoS indicator ([0320], last 3 lines).

Regarding **claim 13**, Wing So and Enoki et al. disclose everything claimed as applied above (see claim 1). In addition, Wing So discloses the device as in claim 1 further operable to request backward traffic parameters from the source when the initial path request message does not contain such parameters ([0230], and [0231]).

Regarding **claim 14**, Wing So and Enoki et al. disclose everything claimed as applied above (see claim 1). In addition, Wing So discloses the device as in claim 1 further operable to generate and send a first delete path message to the source and to

receive a second delete path message from the source in order to delete the bi-directional LSP ([0615], line 1, and [0568], lines 1-4).

Regarding **claim 15**, Wing So and Enoki et al. disclose everything claimed as applied above (see claims 1 and 15). In addition, Wing So discloses the device as in claim 14 further operable to send the first delete path message to the source before receiving the second delete path message from the source ([0615], line 1, [0570], lines 1-2, and [0572], lines 1-end).

Regarding **claim 16**, Wing So and Enoki et al. disclose everything claimed as applied above (see claims 1 and 15). In addition, Wing So discloses the device as in claim 14 further operable to send the first delete path message to the source after receiving the second delete path message from the source ([0615], line 1, [0570], lines 1-2, and [0572], lines 1-end).

Regarding **claim 17**, Wing So discloses a network device (system, Abstract, line 1) operable to generate independently and send (setup, [0194], line 4) a backward (reverse, [0194], line 4) path reservation message (setup request, [0194], line 3) to a destination after receiving a backward path request message from the destination in order to establish a backward LSP between the device and the destination ([0488], line 3, and [0572] , lines 1-3, and 1-9).

However, So fails to specifically teach that the device by itself generates a backward path request message to a source.

Enoki et al. teach the device by itself generates a backward path request message to a source (referring to Fig. 15, in paragraph [0147], it states that “the LSR 3

transmits a label request message S26 required for the down direction LSP setup to the LSR 2". The down direction is from terminal B to A, see [0143], last 3 lines).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine So with Enoki et al. to obtain the invention as specified, for designating the down direction.

Regarding **claim 18**, Wing So and Enoki et al. disclose everything claimed as applied above (see claim 17). In addition, Wing So discloses the device as in claim 17 further operable to separately generate and send a forward path request message to the destination in order to establish a forward LSP between the device and the destination, wherein the separately established forward and backward LSPs between the device and the destination form a bi-directional LSP between the device and the destination ([0488], lines 1-5, and [0194], lines 1-9).

Regarding **claim 20**, Wing So and Enoki et al. disclose everything claimed as applied above (see claim 17). In addition, Wing So discloses the device as in claim 17 further operable to generate and send a first delete path message to the destination and to receive a second delete path message from the destination in order to delete the bi-directional LSP ([0615], line 1, and [0568], lines 1-4).

Regarding **claim 21**, Wing So and Enoki et al. disclose everything claimed as applied above (see claims 17 and 20). In addition, Wing So discloses the device as in claim 20 further operable to send the first delete path message to the destination before receiving the second delete path message from the destination ([0615], line 1, [0570], lines 1-2, and [0572], lines 1-end).

Regarding **claim 22**, Wing So and Enoki et al. disclose everything claimed as applied above (see claims 17 and 20). In addition, Wing So discloses the as in claim 20 further operable to send the first delete path message to the destination after receiving the second delete path message from the destination ([0615], line 1, [0570], lines 1-2, and [0572], lines 1-end).

Regarding **claims 23-26, 29, 31-44**, they are method (Abstract, line 1) claims of claims 1-22, therefore they are rejected for the same reason above.

Regarding **claims 45-48, 51, and 53-56**, they are means ([0065], line 5) claims of claims 1-22, therefore they are rejected for the same reason above.

Response to Amendment

3. Applicant's amendment filed 4/28/2008 has been received and considered. Only a typing error is corrected for claim 35.

Response to Arguments

4. Applicant's arguments, filed 4/28/2008, have been fully considered but are not persuasive.

5. Applicant argues that So does not disclose independently generating a backward path claimed in claim 1, and Enoki does not remedy the deficiencies.

In response, the Examiner respectfully disagrees.

Enoki et al. was added after last final rejection therefore the Office Action mailed on 1/24/2008 was changed to non-final rejection under 103(a). The difference of So and Enoki is that in para. [0194], line 4 by So, "return" is used, but in para. [0147], line 1 by Enoki, "transmit" is used. Applicant can argue that "return" is simply a response,

therefore So does not disclose the “generate”, but “transmit” involves “generate”, obviously. Also refer to Fig. 15, it can be seen that the S26 is generated by LSR3.

6. Applicant argues that So’s para. [0374], and [0482] do not disclose the additional elements in claim 2. Mainly, the device by So is not in the receiving.

In response, the Examiner respectfully disagrees.

Also refer to Fig. 15, it can be seen that the LSR3 is in the receiving.

In addition, claim 2 and all other claims do not have the language of functional details where the device is located. Even though the limitation is read in light of the specification, limitations are not read into the claims. In light of this, the examiner does not interpret the device is only in the receiving side. Any device that has the functions as claimed discloses the elements as claimed.

7. Applicant argues that paras. [0194], [0365], and [0488] do not disclose the claimed elements in claim 3 and 4.

In response, the Examiner respectfully disagrees.

For claim 3, Wing So discloses the device as in claim 1 further operable to generate and send a backward path reservation message ([0194], line 4) to a destination after receiving a backward path request message ([0194], line 3) from the destination in order to establish a backward LSP ([0365], line 7) between the device and the destination (set of nodes, 3rd line from the end).

For claim 4, Wing So discloses the device in claim 3 further operable to separately generate and send a forward path request message to the destination ([0194], lines 1-7) in order to establish a forward LSP ([0365], line 7) between the

device and the destination (set of nodes, 3rd line from the end), wherein the separately established forward and backward LSPs between the device and the destination form a bi-directional LSP between the device and the destination ([0194], lines 1-9, and [0488], lines 1-5).

All lines are clearly indicated.

8. Applicant argues that for claim 12, So does not teach QoS.

In response, the Examiner respectfully disagrees.

The “jitter” in para. [0320] by So is one of the parameters of QoS, as known to a person of ordinary skill in the art.

9. Applicant argues that cited paras. [0570] and [0572] do not teach the elements in claims 15 and 16.

In response, the Examiner respectfully disagrees.

In addition to those paragraphs, the examiner quoted [0615] that mentions deleting. Along with those paragraphs mentioned above, especially last 4 lines in [0572], it is obvious that the delete message is sent first and later confirmed.

10. All other arguments regarding other claims are related to the issues discussed above.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WANDA Z. RUSSELL whose telephone number is (571)270-1796. The examiner can normally be reached on Monday-Thursday 9:00-6:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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